BOSTON MEDICAL AND SURGICAL JOURNAL.

Vol. LxxI.

THURSDAY, OCTOBER 27, 1864.

No. 13.

DIFFICULT LABOR. ARM PRESENTATION. DELIVERY BY TURN-ING. SUDDEN DEATH.

[Communicated for the Boston Medical and Surgical Journal.]

MESSES. EDITORS,—If you think the following case will be of any interest to the readers of the JOURNAL, you are at liberty to give it an insertion.

On the 4th of August, 1864, I was called to see Mrs. M., who had been in labor with strong pains for more than thirty-six hours, attended by an Irish woman who sometimes officiated as a midwife among that class of patients. Upon making an examination, I found a hand and arm in the vagina near the os externum. I made some effort to return it, but with little effect, the shoulder pressing firmly against the os tincæ by almost continued contraction of the uterus. I introduced my hand over the body of the child, far up into the uterus, with great difficulty, on account of the strong contractions of that organ. In a little time I succeeded in grasping one leg, and brought the foot down into the vagina and secured it with a wide tape; this was handed to an assistant, and I attempted to bring down the other leg and foot, but on account of the high position of the foot and the powerful contractions of the womb, I found it impossible to do so with safety. Fearing the uterus might be ruptured, I desisted for a short time.

I now left the patient for a few moments, procured some chloroform, and invited Dr. Garland to my assistance. On returning to
the patient, we put about two drachms of the chloroform on a napkin, and applied it to her mouth and nose. She breathed it freely,
and in a very short time was under the influence of the anæsthetic,
so that the hand was readily passed, the remaining foot and leg
brought down, and the turning accomplished; the expulsion of the
child soon followed. The whole time, from the inhalation of the
chloroform to the delivery, did not exceed fifteen or twenty minutes.
The womb soon contracted, and the placenta was removed. The
woman soon rallied and spoke, not having been wholly unconscious
at any time. Having an urgent call I left, after applying my hand

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to the bowels, finding the uterus contracted in the centre of the abdomen, and ordering some stimulants and warm gruel to be given.

I was absent about an hour; and on my return, to my great surprise and astonishment, I found the woman had been dead fifteen or twenty minutes. There had been some little flooding, but not profuse. I learned by the attendants that she soon became insensible, and could not be aroused. She continued to sink, until life was extinct. I will here state that she was a healthy woman, and had borne several children.

Query.—What was the cause of death in this unfortunate case? Was it from the effect of the small quantity of chloroform; the loss of blood, which was small; or from prostration produced by the severe and long protracted labor? Will the readers of the JOURNAL who are in the habit of using chloroform in parturition (and others), give their experience and views through the JOURNAL on the use of chloroform or ether. I very seldom use it in childbirth, and therefore cannot well judge of its effects and utility. Any information on the subject would be thankfully received.

Lawrence, Oct. 8th, 1864.

SENECA SARGENT.

[Of course it is impossible to decide with anything like absolute certainty what was the cause of death in the distressing case above narrated, but we will give our correspondent the benefit of our own conjectures, and we should be very glad to publish any communications from any of our readers on the subject.

The cause of death in this case was probably one of the following three, or a combination of them, namely: paralysis of the heart from the action of the chloroform; rupture of the uterus; the hæmorrhage

reported, or internal, post partum.

We are not inclined to attribute the fatal event to the inhalation of chloroform alone, as it did not take place in the manner in which it usually occurs after a fatal dose of this deadly agent. There does not appear to have been the sudden arrest of respiration and the heart's action, which generally give the most peremptory warning of the imminent peril in which the patient is placed. Consciousness was not entirely suspended during the inhalation, and there was nothing alarming to the physician in the appearance of the patient at the time he left her. At this time the uterus was felt, firmly contracted, in the usual place.

The extreme difficulty of the labor, and the resistance of the uterus to the manipulations necessary to perform the operation of turning, the long-continued pressure of the womb by the child against the brim of the pelvis, excited proper caution of the physician lest rupture of the organ might take place. He clearly foresaw this danger, and did his best to avoid it. We do not think, therefore, that this accident occurred, as it probably would have been recognized, and the startling symptoms attendant upon it do not seem to have

been present.

Moderate hæmorrhage is said to have taken place, but not enough, it is thought, to account for the death. This is a difficult point to settle. Its determination depends upon another, namely, the condition of the patient at the time, and her ability to bear even a small loss of blood. It is nothing unusual, as all accoucheurs know, for a moderate bleeding, after a protracted and exhausting labor, to cause most alarming syncope. The management of such cases calls for the exercise of the wisest judgment and the greatest caution on the part of the physician. The last straw breaks the camel's back. Here was a woman who been in strong labor for thirty-six hours before a professional attendant was summoned. It was a cross birth, and the uterus had in vain expended all its efforts to discharge its Closely contracted upon the child, it was only with great burden. difficulty that turning was accomplished. Unquestionably there was reason enough for much exhaustion. That this existed, appears from the direction of the physician to administer stimulants and nourish-Full contraction of the womb followed delivery, it is said, but this is just the case in which we should look for the possibility of subsequent relaxation and consequent danger from internal hæmorrhage. The fatigued uterus would be most likely to lose the state of tension which followed immediately after the birth of the child, and allow that deadliest of all uterine hæmorrhages, because concealed from outward observation, to take place. We are strongly impressed with the conviction that this accident really occurred in the present instance. It certainly was most unfortunate that a professional call took away the attending physician so soon after the birth of the child. In all similar cases the danger of internal hæmorrhage should be present to the mind of the accoucheur, and calls for a prudent delay on his part and frequent examination of the condition of the womb before leaving the patient.

To sum up, we believe the death of the patient in the above case to have been caused by uterine hæmorrhage acting upon a system much exhausted by a prolonged and painful labor. We think it very probable there was extensive internal hæmorrhage; but whether this occurred or not, we are satisfied that even a moderate loss of blood, such as was actually observed, might be sufficient to account for the

fatal result.

As to the use of anæsthetics in labor, about which our correspondent inquires, the subject has been pretty fully discussed in our pages already, and we would refer him to that discussion for our answer.* We are in the habit of using sulphuric ether ourselves in those cases in which we employ any anæsthetic. We always employ it, unless the patient positively refuses it, in instrumental labor, or labor requiring manual interference.]

[·] See Nos. 1, 3 and 4, vol. lxix.

DR. GAILLARD'S PRIZE ESSAY ON OZONE; ITS RELATIONS TO HEALTH AND DISEASE.

[Continued from page 237.]

WE proceed now to consider the relation which ozone bears to the existence of pulmonary diseases. Ozone in excess is prone to the production of pulmonary disorders, and to the induction of inflammation in the Schneiderian membrane. The ozonoscope, held before a half-closed door, has a deep hue given to it. Every one knows the effect of subjection to this kind of exposure; the ozonoscope elucidates the cause. It is a recognized fact, that eastern winds in America, and western winds in Europe, as coming over the sea, are frequently productive of pulmonic disorders, and almost always a source of aggravation, where such disorders already exist. Travellers in Africa tell us that pleurisies, pneumonias, &c., mark the coincident occurrence of certain winds. Schönbein mentions that ozone was manifested in marked quantity during an epidemic of influenza and a general prevalence of pulmonic disorders. There seemed to be a division of opinion among observers in Europe, as to the exact relation of ozone to pulmonary diseases, and accordingly extended observations were made for the elucidation of the subject. The testimony in this connection is voluminous, and although not without discrepancy, the conclusion now declared is established by facts. The tables, like those bearing upon other branches of the subject of ozone, are very interesting, but with the rest (on account of their great length and variety) must be omitted. We will at least give the most interesting testimony that is based upon them.

Spengler testifies, that in an epidemic of catarrhal fever and pulmonary disorders, the ozonometric degrees increased with the diseases, and diminished when they disappeared and as they disappeared. Schönbein confirms this testimony; so also does Scoutetten, and recently Clemens has stated that such are the results deducible from his tables. M. Bœckel, Jr., kept a faithful record of all the cases entering the large hospital at Strasburg; from these, he selected all suffering from pulmonary, catarrhal, bronchial, laryngeal and throat disease, carefully comparing the numbers admitted through a long period of time, with the fluctuations in the ozonometer. His conclusions are, that the number of pulmonary diseases (and the deaths from such diseases) is in a direct relation with the quantity of ozone, and in inverse relation with the degree of temperature. When there is much ozone, with a low temperature, such diseases and deaths are numerous; when there is little ozone, with high temperature, exactly the contrary. When there is much ozone, with high temperature, these diseases and deaths are yet marked in frequency. When there is little ozone, with low temperature, there is nothing specially peculiar, though at such times the deaths are often below the average. Scoutetten's tables lead him to conclude, that in the production of pulmonary disorders, ozone is the chief cause; that of temperature, with hygrometrical conditions, being secondary. It is only when the ozonometric record fluctuates much, that a sudden accession of ozone leads to pulmonary trouble; when it is fixed at 8, 9, 10, as on the high table lands of Mexico, an ozonic atmosphere does not produce such disasters. In these cases and among the Esquimaux and other races occupying such atmospheres, the airpassages learn, as it were, to tolerate this stimulus; a stimulus which, when unusual, produces its peculiar effects. This law we see constantly illustrated; the habitual use of any substance, locally or constitutionally poisonous even, produces in time a comparative and at times a total exemption from its ordinary influences. The painter is comfortable in an atmosphere loaded with the emanations from his pigments and their various and offensive menstrua; an atmosphere that brings nausea and sickness to the temporary visitor. The workmen in gas factories endure the constant inhalation of carburetted hydrogen, when an atmosphere containing even a trace of it, brings to most persons loathing and disgust. The opium and haschisch eaters, the tobacco and arsenic smokers, use, in time, with impunity, substances which bring prostration and death to those not gifted with their astounding perseverance and singularly manifested fortitude.

But to return to the insusceptibility of the air-passages to habitual irritants; it is well known that the "dry-grinders" of Sheffield, and other manufacturing towns, live to middle life, without apparent inconvenience, in an atmosphere that inevitably sacrifices them in the very strength of their manhood. Whether the explanation be a reasonable one or not, the fact is clearly demonstrable, that persons may, with impunity, live in an atmosphere saturated to 10 of the scale with ozone, and not only live, but enjoy the most perfect health; when if the atmosphere vary much in the amount of its ozone, a sudden accession of it is attended with catarrhal and pulmonary

disorders.

Phthisis is not included in this connection; for its causes and relations are too multifarious and at the same time specific, to admit of its being classified with ordinary pulmonary disorders. Phthisis seems not to be influenced by the ozonic conditions of the atmosphere. In Florida, where the ozonometer marks zero, or the lowest degrees of the scale, it is scarcely known, and if brought there, in time is often arrested. On the contrary, in the Polar regions, where the register (from cold, ice and other meteorological and physical causes) is mostly at 10, phthisis has never been seen. Dr. I. I. Hayes (Surgeon to the U.S. Grinnell Arctic Expedition, and chief director of the Expedition which sailed during the year 1860 on the same philanthropic, but almost fruitless mission), thus writes on the subject of disease in those latitudes:—"We are astonished at the complete indifference of the Esquimaux to cold; not only do they seem indifferent to it, so far as concerns their physical comfort, but they are Vol. Lxxi.—No. 13*

able to resist all of its depressing influences. They are a strong, robust and healthy race; scurvy is unknown among them; and I have never known or heard of one instance of tubercular disease. It is worthy of remark, that the climate is one of unusual healthfulness, and that scurvy and phthisis are unknown among the natives." Capt. Pope makes a very similar statement, in regard to the inhabitants of the table lands of New Mexico. It seems, then, that we have the negatively-proved fact, that ozone does not influence phthisis; that hygienic influences, life in the open air, with a disregard of temperature, are in this disease both therapeutic and prophylactic; that when not the result of city atmospheres and associations, of the dwelling together of masses in vitiated air and of hereditary transmission, this scourge of our race is unknown. It is not affected by ozone.

A deficiency in atmospheric ozone is frequently coincident with enteric and gastric disorders. At the tropics, the ozonometric register is low, and all are familiar with the malignant enteric disorders of those latitudes. M. Schönbein asserts that a diminution of atmospheric ozone coincided with the prevalence of gastric disorders at Berlin; that there was complete absence of ozone in this city, during the invasion of cholera. M. Billiard, of Corbigny, regards a diminution of ozone as the chief cause of cholera. M. Bæckel, of Strasburg, informs us that the invasion of cholera at that place coincided with the zero of the ozonometer. When cholera prevailed at Vienna, Slechner offered the same testimony in regard to the amount of ozone in the atmosphere. Schnepf, of Vienna, corroborates this statement, and his views were endorsed by M. Knolz, of that city. Dr. Smallwood, of Montreal, Canada East, writes, that "during the last visitation of cholera, there was certainly a diminution in the amount of ozone." M. Robert, at Nendorff, and M. Simonin, at Nancy, advocate the same views. M. Wolf, at Berne, after analyzing the mortuary lists of cholera at Aarau, in Switzerland, and comparing the results with his tables, states, "I conclude that cholera is favored by even the diminution of ozone." Bæckel declares that this diminution of atmospheric ozone is the predisposing cause of cholera.

It will certainly be observed, that all of this testimony is decided and unreserved; it is the testimony of the most reliable observers in the world; it distinctly and clearly states, that between ozone and cholera there is a constant and vital relation. Now it would not be supposed, that where individual observers gave such similar and identical testimony, there could be a different result, when the entire subject was referred to a committee for examination; yet such is the truth. A committee at Kænigsburg could not discover that there was a direct relation between cholera and the amount of atmospheric ozone. How can this discrepancy be explained? Any one familiar with the subject of ozone can easily anticipate the reason.

The ozonometers used were not uniform, being constructed according to the judgment and chromatic acumen of each observer. It would be impossible, in any better way than this, to illustrate the great objection which all must confess to exist, against the ozonometers now in use. We see the best observers giving the most uniform, decided and satisfactory testimony on a certain subject, as long as each is governed by his own instrument; but as soon as others, equally competent, "exchange" their ozonoscopes and refer them to different ozonometers, all is confusion and obscurity. Here the hue of the ozonoscopes may be identical (as when two or more observers in the same city are similarly engaged); but when the ozonoscopes are referred to dissimilar ozonometers, the degrees registered are of course dissimilar, and this dissimilarity in the numbers registered may amount to two and sometimes three degrees at each observation taken. When many hundreds of such observations are taken, and the numbers added, it will be seen at a glance how totally different must be the result, with each individual; all experimenting on the same atmosphere, with the same ozonoscopes, but with different ozonometers.

To give a simple instance of this difficulty, and to make it strikingly apparent, we will suppose that in London cholera makes its appearance, and that, with the same ozonoscopes, three observers are daily taking registers of the atmosphere, in the same locality. observations are made three times a day. The first observer, referring his ozonoscopes to an ozonometer constructed by himself, obtains at each observation, for ten days, the degree 3; his aggregate is 30, and his average 3. A second observer, with similar ozonoscope, but different ozonometer, finds, on comparing the first with the last, that he must register the number 4; he does so, three times a day, for ten days, and his average is 4. The third observer, under similar relations with his ozonoscope, but with a still different ozonometer, registers 5, and obtains this as his average. When these tables are published, we have the startling anomaly of three conscientious and scientific men declaring, respectively, that when cholera appeared, there was a medium supply of ozone, less than a medium supply of ozone, and a great deficiency of ozone. Professional readers, not examining into the very simple cause of this great discrepancy, at once come to the conclusion that either there is no relation whatever between cholera and ozone, or that, if there is, it has been examined by unreliable and dishonest observers.

This is not an imaginary instance, but is unfortunately founded on fact. It is beyond belief that, for many years, observers throughout the world have thus been within reach of the most valuable results, by the faithful use of efficient and similar ozonoscopes, but have had their hopes obscured and their deductions confused by so simple yet fatal a difficulty. Nothing, however, can better illustrate this truth, than the fact that observers, in their individual investiga-

tions, have almost universally testified that the existence of cholera coincides with the low degrees and the zero of the ozonometer; when a committee, in their labors, reach either negative or opposite results—involving the whole subject in uncertainty, obscurity and contradiction.

We believe that the whole of these difficulties can be easily and immediately removed by the general introduction of an efficient and uniform ozonometer. Under the present difficulties, however, the position is generally taken that the existence, duration and mortality of cholera is directly influenced by the amount of atmospheric ozone. M. Boeckel's opinion, that an absence of ozone is the predisposing cause of cholera, needs further examination before confirmation.

Many experiments have been made with a view of determining the effects of ozone upon rheumatism, but the results are not sufficiently definite to warrant any conclusion. Many of these experiments indicate that there is a relation, but the degree of this does not seem to be uniform.

The amount of ozone in the atmosphere on the mountains and in the valleys of Switzerland differs very much; it is much greater on the former. This point has been investigated in relation to bronchocele and cretinism. De Saussure states that these diseases do not exist among those living at the height of 1,000 metres above the level of the sea. In such atmospheres ozone is usually abundant, but it may be premature to say that bronchocele and cretinism prevail in an indirect ratio with ozone. It will be recollected that Capt. Pope concludes that there is a direct relation between the abundance of ozone and the malignity of cutaneous diseases. M. Wolf, in his last essay read before the Academy of Sciences, declares that a rapid diminution in the amount of atmospheric ozone is usually followed by a general augmentation of mortality.

[To be continued.]

LETTER FROM PHILADELPHIA.

[Communicated for the Boston Medical and Surgical Journal.]

MESSRS. EDITORS,—For reasons unknown to your quondam correspondent, the proposed meeting of the National Quarantine and Sanitary Convention has again been postponed, until next spring. Circulars had been issued calling for the election of delegates by the various medical associations to meet said "Quarantine, &c.," on Tuesday, Oct. 25th; immediately, the societies thus invoked, elected delegates more or less, to represent them in said convention, and now we are told that we shall have to postpone the usual round of feasting and sight-seeing until next spring. Perhaps the Goddess of Health may take care of us until that time. Let us hope.

Medically speaking, Philadelphia has resumed her labors, to end in the usual delivery of a host of "doctors" licensed to—practise

secundum artem. The prospects, so far, will not impress any one with the idea of enormous classes, though new students generally continue to reach the city until "Christmas week," by which time it is supposed that they are deeply immersed in their studies.

Our societies have resumed their conversations, and are quite well attended; the subjects discussed being the usual diseases of this period, with a decided anxiety for information upon the "so-called spotted fever." Some day I shall endeavor to entertain your numerous readers with a full account of our medical gatherings and what

we do there.

The volume of Transactions of the Medical Society of the State of Pennsylvania has just made its appearance, and is rather more creditable to that learned body than has been the case with many of their previous issues. In a hasty glance at it, I do not find so many of those errors or carelessly written prescriptions as may be found profusely scattered through at least two previous volumes. Such a volume is regarded outside of the profession as an exponent of the power of the medical fraternity producing it, and, consequently, too often these volumes of Transactions produce in the minds of outsiders a rather unfavorable idea, which is not at all calculated to improve their belief in our skill or knowledge. This is a matter of vital importance, and most urgently needs correction.

Dr. Alfred Stillé, the new Professor of Practice in the old University, has made his *début*, and appears to have produced a most favorable impression upon his class, which I trust may continue.

Dr. Ellerslie Wallace, Professor of Obstetrics in the Jefferson, meets with great success, and has fully satisfied his friends that he is

a worthy successor of the venerable and gifted Meigs.

Health abounds in our city, and I cannot say that any epidemic prevails, with the exception of that terrible fever which attacks so many about the fall, and is shown by the utterance of windy speeches in the "spread eagle" style, but which it is hoped will disappear after the "ides of November." N.

Philadelphia, October 14th, 1864.

Bibliographical Notices.

A Vindication of the Present State of Aural Surgery. By a Member of the New Sydenham Society. London: John Churchill & Sons.

In the number of the JOURNAL for July 14th, 1864, a notice of certain works upon Diseases of the Ear was closed with perhaps too entire a commendation of Dr. Wm. Kramer's late work, entitled "The Aural Surgery of the Present Day," recently presented to the profession by the New Sydenham Society, in the form of a translation. We are free to confess that at the time the mere allusion to this volume was made, we had only glanced at its contents. A more careful examples.

mination, since, and especially a perusal of a pamphlet just published by Mr. Toynbee, of London, has induced us very materially to modify the unqualified approbation at first awarded to Dr. Kramer's book. We also plead guilty to leaning rather too absolutely upon the endorsement of the volume by the Sydenham Society, as afforded by its adoption as one of their series of publications. Mr. Toynbee's critique is perhaps somewhat severe, but, we must allow, it seems to us just in nearly all of its positions; and, as he is "a member of the New Sydenham Society," that Association would apparently do well to consult him in regard to any future publications upon Aural Surge-

ry they may think of putting before the profession.

We can still honestly say that Dr. Kramer's book has very much in it of "value and interest," but in regard to the points where the author is taken to task by his critic, it seems to us the latter has the advantage. Mr. Toynbee has entitled his pamphlet "A Vindication of the Present State of Aural Surgery." The writer's name does not appear upon the title-page, but the production has been personally acknowledged by him. The condemnation of Dr. Kramer's book is, as we have intimated, very sharp and wholesale—as the following extract from the "Introduction" will suffice to show :- "There cannot, however, be the least doubt in the minds of those who are able to give an opinion of the book, that it is wholly unworthy of the subject it treats, and that not only does its author lay himself open to censure by pretending that it represents the present state of Aural Surgery, but that the Council of the New Sydenham Society, by undertaking its publication, have exhibited either ignorance or carelessness. Indeed, in place of being, as its title would indicate, a comprehensive and intelligent survey of the present state of Aural Pathology and Surgery, it is in reality little more than an advertisement of the author's peculiar system of treating diseases of the ear, by means of his four catheters and catgut bougies. Anatomy, pathology and scientific surgery are sneered at, every modern plan for simplifying the study of ear diseases, and for enabling them to be diagnosticated and treated by the members of the profession, are [is] wholly ignored, and the author's system of using four catheters and catgut bougies is made to be the all-in-all of aural diagnostics and therapeutics. Indeed, so great an injustice has been done to the subject of Aural Surgery in the issue of this volume by the New Sydenham Society, that its perusal must call up a blush in all having any knowledge of, or interest in, its study; and doubtless the members of the New Sydenham Society have good reason to be indignant that such a production has been forced upon them."

In his criticisms, Mr. Toynbee specially alludes to the following

In his criticisms, Mr. Toynbee specially alludes to the following points:—1st. Dr. Kramer's assertion of "the uselessness of anatomy and morbid anatomy"—a declaration likely to touch the critic nearly, since a large part of his reputation rests upon his researches and discoveries made through the application of those branches to the study of diseases of the ear. 2dly. The "physiology" of Dr. Kramer is found to be at fault, in that he does not admit the conduction of sound by means of the ossicula auditus, and reasons therefrom that disease of the ossicula cannot produce deafness. The analogy between the adaptive power of the iris of the eye and that "demonstrated" to belong to the chain of small bones with regard to different degrees of sound, is overlooked by Dr. Kramer. The fact that the Eustachian

tube is normally closed, and that its faucial extremity is only opened during deglutition, is also not noticed. This latter fact "was demonstrated by Toynbee." 3dly. Kramer's ignoring reflected light in examinations of the outer ear is alluded to, and also his neglect to notice "the inexpensive and simple silver speculum now in general use," while the "long-bladed, unwieldy and costly steel implements are alone recommended." The use of the "catheters" and of the "catgut bougies" is next animadverted upon, and also Dr. Kramer's advocacy of treating diseases of the ear independently of "any consti-tutional affections." In no portion of Mr. Toynbee's strictures can we more heartily join him than in those relative to the two topics last mentioned. The constant and persistent probing and catheterism of the Eustachian tube, as was remarked in a former article, can hardly be too pointedly condemned; and the evident connection of very many aural affections with morbid constitutional states, cannot but impress the careful observer. 4thly. The "Special Surgery of the Ear" is considered, and Mr. Toynbee acknowledges himself startled by the announcement, from Dr. Kramer, "that the meatus is lined by mucous membrane." Criticism upon the author's views as to inflammation of the membrana tympani follows, and also in respect to the artificial membrana tympani. Then come remarks upon "Diseases of the Middle Ear," in treating which by Dr. Kramer's "bougies," &c., the pain caused is especially mentioned, and the inefficacy of the measures advised directly asserted :- "The Germans must, indeed, be a patient, long-suffering race, if they calmly bear Dr. Kramer's operations, especially so as those operations are, without any doubt, utterly useless. Why pass catgut bougies into 'the healthy Eustachian tube?' Not to diagnosticate its state; for this purpose we have seen that no operation is required; not to treat the Eustachian tube, for it is 'healthy;' not to treat the tympanic cavity, for 'it is useless to push the catgut' there. Then for what human, or rather inhuman, purpose is catgut forced into 'different people's' tympanic cavities, producing extremely acute pain, and running a risk of dislocating the stapes and destroying life? We suppose Dr. Kramer would reply, 'in order to help me to diagnosticate my four kinds of exudation in the tympanic cavity'—Dr. Kramer's pathological discovery, and which we now proceed to consider."—(Toynbee, op. cit.) Space, we fear, could hardly be allowed us to follow the critic, in detail, in his comments the pretion of Dr. Kramer's work. Suffice it to say that the upon this portion of Dr. Kramer's work. Suffice it to say, that the most prominent remarks relate to the employment of the "catgut bougies," injections into the Eustachian tube, &c. The writer's summary conclusion is, "that nothing more unworthy of the subject can possibly have been penned." He then contrasts Dr. Kramer's views and teachings with what has recently been written, by himself and others, and verified by "hundreds of dissections," in the following résumé:-"These morbid conditions of the mucous membrane may be summed up briefly as follows :-

"1. Simple congestion.

"2. Hypertrophy: with or without an accumulation of mucus.

"3. Rigidity.

" 5. Ulceration.

[&]quot;4. Ossification of the fibres surrounding the base of the stapes, causing anchylosis of the stapes.

"And these morbid states are capable of easy diagnosis, as will be

perceived by reference to recent works on the subject."

Exception is next taken to Dr. Kramer's ideas in reference to "Noises in the Ears, without Hardness of Hearing"—that author considering that the seat of such noises "can only be in the chorda tympani"! The treatment advised is the injection of "a few drops of a solution of nitrate of strychnine (gr. 1. to 3i. of water)! This is to be 'injected into the cavity of the tympanum through a No. 1 catheter; this may either be repeated daily, or once or twice a week, according to the activity of absorption possessed by the membrane of the tympanic cavity.'

"Truly, the Sydenham Society has been the means of introducing novel views of pathology and therapeutics to English medical men!"

(Toynbee.)

Diseases of the Internal Ear and Deaf-Mutism are next considered. Kramer's statement that the proportion of cases of Nervous Deafness is "only four in a thousand," is considered by Mr. Toynbee a notable mistake; as is also the declaration that in cases of "nervous deafness there is complete loss of hearing." This latter Mr. T. believes to be

" fortunately very rare."

In respect to "Deaf-Mutism," Dr. Kramer states that "in many, perhaps even in the majority of cases, no structural changes are discovered either in the labyrinth or in the centric extremity of the auditory nerves." Mr. Toynbee cites figures to prove the contrary—in "36 dissections by different anatomists, we shall find that in every case, with the exception of one of Mr. Toynbee's five, well-marked lesions were found."

In "Conclusion," the critic presents a condensed statement of what he believes to be the present condition of Aural Surgery, "as compared with its state a few years back," and this we quote entire.

"And, first, regarding the exploration of the external meatus. Instead of, as formerly, simply looking into the meatus by allowing day or candle light to fall into it, or by merely exploring it with a probe. we at present use a reflector or a lamp with a tubular speculum, and thus light up every part of the meatus, and if it is clear from obstruction we gain a view of the membrana tympani; accumulations of cerumen or epidermis, tumors of various kinds, hypertrophied conditions of the dermis, and the several sources of discharge can be seen, and the presence or absence of foreign bodies can be decided upon, there being no longer a fear of dangerous operations for the removal of the latter, when in reality they are not present. In place of syringing the ears in every case of deafness, and thereby often doing serious mischief, at present a due exploration at once decides if syringing be necessary, and when necessary, the removal of the accumulation having been effected, we are led to seek for the affection of which this accumulation was symptomatic. Instead of dropping in oils or tinctures in all cases of obstruction, at present we are aware of the frequent presence of bony or sebaceous tumors, and we treat them accordingly. Instead of using the terms otorrhea and otitis in cases of the manifold discharges and inflammations to which the ear is subject, we at present specify the source of the discharge, or the nature and seat of the inflammation. At present we know that polypi are, as a rule, symptomatic of some deeper affection of the organ, and we do not seek to cure them by mere extraction, but by striving also to remove the cause. In place of talking of inflammation of the membrana tympani, we now specify whether it is the dermoid, fibrous or mucous layer that is affected. We no longer feel that deafness arising from an aperture in the membrana tympani is incurable; at present, being unacquainted with the real structure of the membrana tympani, and how it is kept in a resilient state, we use artifical substitutes for this organ. At present we also know the various morbid conditions to which the membrana tympani is subject, as relaxation, tension, hypertrophy of its layers, calcareous degeneration, &c. Instead of being in darkness regarding the diseases of the tympanic cavity, we at present know the various diseased conditions to which its mucous membrane is subject, as hypertrophy, rigidity, the formation of false membrane, and the various kinds of accumulation, as mucus, pus, scrofulous matter, and blood, which are apt to take place there. We know also the intimate relations existing between this mucous membrane and the dura mater, and we know that disease of the mucous membrane of the tympanum is apt to extend to the cerebrum, and that of the mastoid cells to the cerebellum. At present we know the double function of the chain of bones, also the nature of their diseases, especially of that interesting disease ankylosis of the stapes, of which so many dissections have been of late years placed on record. Of the Eustachian tube, instead of believing that it ought to be always open, and endeavoring to keep it open, at present we know that it ought to be open only during the momentary act of swallowing, that its patescence is one of the most unendurable of diseases; we also can diagnose the state of the Eustachian tube and tympanic cavity by means of the otoscope and a single tube, without the aid of the Eustachian catheter; we also know the various causes of obstruction of the Eustachian tube, and when the catheter ought and when it ought not to be used; we know also that when the faucial orifice of the tube is obstructed, the prime duty of the surgeon is to remove all impediments to the opening of the tube by its muscles. In place of looking upon all cases of noises in the ear as instances of nervous deafness, we at present know that noises in the ears are produced by affections of various structures which induce a deranged or defective action of the nervous apparatus; further, we at present know that debility of the nervous apparatus of the ears may depend upon either physical weakness or over-mental strain. We also know that suppuration in the labyrinth is apt to originate disease in the medulla oblongata. And instead of speaking of cases of 'caries of the petrous bone extending to the brain,' we at present are aware that the affections of certain parts of the organ of hearing produce disease in certain and distinct portions of the brain, and that the cause of disease extend ing from the ear to the brain, as a general rule, is the detention of matter in one of the cavities of the ear. In short, it may be said that we are now so far acquainted with the structure and pathology of the ear that, in cases of disease and deafness, we are at present enabled to particularize the tissue affected and the nature of its affection, and also to point out the proper treatment. Doubtless the subject of the diseases of the ear is still beset with many difficulties; indeed, it is one requiring so great and so prolonged attention that it is probable, at least for some years to come, surgeons will be required to de-Vol. Lxxi.-No. 13a

vote themselves solely to Aural Surgery; but we contend that that branch of surgery has been raised to the dignity of a scientific study. If further proof of this statement were wanted, it may be found in the fact that at least three London hospitals now have aural surgeons attached to them, and regular courses of lectures on the diseases of

the ear are delivered in some of our medical schools.

"We have now completed the task rendered requisite by the publication of this volume on the present state of Aural Surgery, by the New Sydenham Society. We think we have shown that the work does not give the faintest idea of the present state of Aural Surgery, but that, on the contrary, it is wholly unworthy of its subject, and we have given grounds for believing that the subject is worthy of the

present state of medical science.

"And, if asked why we consider the task of thus vindicating the present state of Aural Surgery incumbent upon us, we reply, because we consider it the duty of this country to uphold, as far as possible, the scientific character of the study of Ear Diseases; for, when we turn to Europe and America, we find that the scientific workers in this branch of professional study (and they are now numerous and able) unceasingly point to the researches conducted in this country on the anatomy, physiology, pathology, and therapeutics of the ear, as forming no insignificant share in the foundation of scientific Aural Medicine."

On Rheumatism, Rheumatic Gout and Sciatica, their Pathology, Symptoms and Treatment. By Herry William Feller, M.D., Cantab.; Fellow of the Royal College of Physicians, London; Physician to St. George's Hospital, &c. &c. From the last London Edition. Philadelphia: Lindsay and Blakiston. 1864. 8vo. Pp. 424.

This is the third edition of Dr. Fuller's scientific treatise on the different forms of rheumatism and the allied diseases, and comes to us enriched by the mature experience of the author since the work first appeared. His views are, in the main, those which obtain the most general support among the leading minds of the medical profession at the present time, and the author reaffirms with great confidence the efficacy of the alkaline method of treatment proposed by him, and which has come into such general favor. In the chapter on Sciatica and Neuralgic Rheumatism, he gives the result of his experience with regard to the effect of subcutaneous injections of anodynes in these complaints, with some cases in illustration. We cannot too strongly recommend this work as embodying the most philosophical views both in theory and practice of the distressing complaints of which it treats.

A Treatise on the Chronic Inflammation and Displacement of the Unimpregnated Uterus. By WILLIAM H. BYFORD, A.M., M.D., Professor of Obstetrics, &c., Chicago Medical College, Medical Department Lind University. Philadelphia: Lindsay and Blakiston. 1864. 8vo. Pp. 215.

This handsomely printed volume is mainly a treatise on inflammation of the cervix uteri and its complications and consequences, and is intended to meet a want very generally felt by the younger members of the medical profession. It is a sensible, practical work, and cannot

fail to be read with interest and profit. It is supplied with a copious index.

The Physician's Dose and Symptom Book, containing the Doses and Uses of all the principal articles of the Materia Medica and Officinal Preparations, &c. &c. By Joseph Wythes, A.M., M.D., Author of the "Microscopist," "Guriosities of the Microscope," &c. &c. Fourth Edition. Philadelphia: Lindsay and Blakiston. 1864.

This little manual contains also rules for proportioning the doses of medicine, a table of poisons and their antidotes, dietetic preparations, a table of symptomatology, &c. It is small enough to be carried in the pocket without inconvenience, and its use would save practitioners from the tendency to routine prescription, from which few escape without some such mentor to recur to occasionally. We think the author has not given as much attention as he might have done to new remedies, or the new application of old ones. Several that we have looked for we have found wanting or imperfectly noticed. But in the main it will be found to be a very useful little book. It is supplied with a full index.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, OCTOBER 27, 1864.

WHAT SHALL WE EAT ?- No question, perhaps, could be framed which so readily claims the attention of every human being as this. The laborer going anxiously forth to his daily toil does not always succeed in finding a satisfactory answer for the hungry mouths which ask it, while to the physiologist and political economist it becomes one of increasing importance each year, as the world grows fuller and its soil less fertile. In other countries, older than our own, oppression and overcrowding have worked out many an interesting dietary experiment, and have tested the capabilities of human endurance both as to the minimum quantity and the quality of food. Fortunately for us, this vast continent has preserved its long-accumulating, virgin soil to our day, and has filled our mouths with plenty, and overflowed for the benefit of the starving peoples of the other hemisphere. The question "what shall we eat?" has been generously answered by mother earth hitherto by a "what you will." There are signs, however, visible to the reflecting, which mark the approach of the time with us also when a novel importance shall attach itself to this question, when in fact it shall no longer be one of choice only as heretofore, but of the possibility of getting. We have been wantoning with the bounty of nature. Heedless of the very lessons forced upon us by our superabundance, we have not stopped to ask if there was no warning for us in the ready market our cereals have found in other countries, in the anxiety which a small harvest here has produced in the unsta-ble thrones of Europe, and the immense throng of immigration fleeing from starvation to our shores. Our fathers began by burning and cutting off all the forests, and destroying all the woodland growth of centuries. Thus the Atlantic States were built up by the wholesale destruction of the products of their surface. These failing, the immense and fertile plains of the West were next attacked, and as one State has grown less and less productive under the fatal system of taking all the taxed soil will yield and giving nothing back, cultivation has been pushed farther on towards the Pacific. Thus it happens that portions of New York and Ohio, which were once as fruitful as Eden, have become as barren as New England, and the same increasing unproductiveness of a starved soil is ever following the farmer in

his destructive course westward.

Bread, indeed, is still abundant and cheap; but we cannot live upon bread alone. Animal food is as necessary to man as the products of vegetation, and the soil which is unable to produce a sufficiency of both for its population is in a critical condition. This fatal confidence in nature's power to create life and plenty from nothing has at last begun to make itself felt in this way, and the question, where shall we get our meat, is becoming almost as serious a matter in Young America as in the exhausted countries of the old world. The price of meat has risen so greatly of late that the poor no longer can obtain a necessary supply, nor is this increase by any means due to the relative enhancement in the cost of all other articles of consumption. In the country, good beef cannot be bought at any price, and mutton is scarce and of poor quality. As to milk, nearly all of that purchased at such high rates by the laboring classes is largely adulterated, and the milkmen find it difficult to supply their customers. Even the sick cannot always obtain the necessary quantity of proper animal food, and we have several times been told by patients living at a distance from large cities that it would be impossible to carry out the directions as far as diet was concerned. Among farmers a dinner of fresh meat is becoming more and more a rarity, and yet no people require a greater amount of animal food than our own. New England now calls largely upon the Western States for its supply, and as the richness of those regions is gradually sapped and their own population increases, this source cannot prove sufficient for our need.

If, then, our present stock of domestic cattle fails to furnish the proper quantity of animal food, is it possible to supply such deficiency by the introduction of other species to our table? The numerous acclimatization societies, which have been lately organized in Europe, are testing the economy of such measures, and the artificial culture of fish, which is carried on in the same countries with so much success, is an effort in the same direction. It is evident, however, that if our soil is at the present moment taxed beyond its long endurance to support its present growth of fruit and grains, and of sheep, swine and beeves, there would be no economy in the domestication of other large herbivorous animals, as the cland, for instance, or other South African antelopes, unless an equal amount of nutriment for man were

thus produced with a less drain upon the soil.

There is, however, one source of flesh which deserves the attention of all interested in this matter among us, and which has for several years received the consideration of men of science in Europe. The horse is as strictly an herbivorous animal as the ox, and according to all who have tasted it his flesh is nearly as palatable as that of the latter.

Indeed, its most nearly allied relatives in nature, the wild asses of Asia and the quagga of Africa, are hunted on account of their flesh, which is thought to be one of the greatest dainties. Many tons of good animal food are allowed to go to waste during the year in every community on account of our prejudice or ignorance regarding the fitness of this animal for food, which might otherwise help supply this deficiency we deplore. Every horse, as soon as disabled by age or accident from service in his present capacity, could be easily fatted and slaughtered, and thus add greatly to his present value and the productiveness of the land. For ourselves we would as readily eat the flesh of the horse as of the ox, sheep, deer, or other vegetable feeder, and far rather than that of the filthy and parasite-breeding hog. We trust it will not be long before a slaughter-house for horses is established in this country, and that its flesh will become a regular article of diet as in Vienna, Berlin, Lyons and Zurich.

Science and Scripture.—The following correspondence is copied from the London Athenœum of Saturday, Sept. 17th, 1864:—

Sion House, Lower Clapton, N. E., Sept. 5, 1864.

Sir,—I beg to call your attention to the accompanying Declaration, now in course of signature among scientific men, which it is proposed to issue, when a sufficient number of names has been obtained. I trust that you will approve of the spirit of the document, and the terms in which it is expressed, and solicit the favor of your signature to be appended to the memorial.—I am, Sir, your obedient Servant,

Capel. H. Berger.

Sir John Herschel, Bart., K.H., F.R.S., &c.

THE DECLARATION.

We, the undersigned, Students of the Natural Sciences, desire to express our sincere regret that researches into scientific truth are perverted by some in our own times into occasion for casting doubt upon the truth and authenticity of the Holy Scriptures. We conceive that it is impossible for the Word of God, as written in the book of nature, and God's Word written in Holy Scripture, to contradict one another, however much they may appear to differ. We are not forgetful that physical science is not complete, but is only in a condition of progress, and that at present our finite reason enables us only to see as through a glass darkly, and we confidently believe that a time will come when the two records will be seen to agree in every particular. We cannot but deplore that natural science should be looked upon with suspicion by many who do not make a study of it, merely on account of the unadvised manner in which some are placing it in opposition to Holy Writ. We believe that it is the duty of every scientific student to investigate nature simply for the purpose of elucidating truth, and that if he finds that some of his results appear to be in contradiction to the Written Word, or rather to his own interpretations of it, which may be erroneous, he should not presumptuously affirm that his own conclusions must be right, and the statements of Scripture wrong; rather leave the two side by side till it shall please God to allow us to see the manner in which they may be reconciled; and, instead of insisting upon the seeming differences between Science

and the Scriptures, it would be as well to rest in faith upon the

points in which they agree.

Upwards of 210 names have already been received, including 30 F.R.S.'s, 40 M.D.'s, &c. Among them are the following:—Thomas Anderson, M.D., J. H. Balfour, M.D., Thomas Bell, J. S. Bowerbank, Ll.D., Sir David Brewster, James Glaisher, Thomas Rymer Jones, James P. Joule, LL.D., Robert Main, Lieut.-Col. Sir Henry C. Rawlinson, Thomas Richardson, Ph.D., Henry D. Rogers, LL.D., Adam Sedgwick, M.D., Alfred Smee, and John Stenhouse, LL.D., who has kindly offered to receive signatures at his laboratory, Rodney street, Pentonville, London.

Collingwood, Sept. 6, 1864.

Sin,—I received some time ago a declaration for signature, identical in its wording, or at all events in its obvious purport, with that you have sent me. I considered that the better course was to put it aside without notice. But since it is pressed upon me, and to prevent the repetition of a similar appeal, it becomes necessary for me distinctly to decline signing it; and to declare that I consider the act of calling on me, publicly to avow or disavow, to approve or disapprove, in writing, any religious doctrine or statement, however carefully or cautiously drawn up (in other words, to append my name to a religious manifesto), to be an infringement of that social forbearance which guards the freedom of religious opinion in this country with especial sanctity.

At the same time, I protest against my refusal to sign your "Declaration" being construed into a profession of Atheism or Infidelity. My sentiments on the mutual relations of Scripture and Science have long been before the world, and I see no reason to alter or to add to them. But I consider this movement simply mischievous, having a direct tendency (by putting forward a new Shibboleth, a new verbal test of religious partizanship) to add a fresh element of discord to the

already too discordant relations of the Christian world.

I do not deny that care and caution are apparent on the face of the document I am called on to subscribe. But no nicety of wording, no artifice of human language, will suffice to discriminate the hundredth part of the shades of meaning in which the most world-wide differences of thought on such subjects may be involved; or prevent the most gently worded and apparently justifiable expressions of regret, so embodied, from grating on the feelings of thousands of estimable and well-intentioned men, with all the harshness of controversial hostility.—I am. Sir, your obedient Servant,

J. F. W. Herschel.

Capel H. Berger, Esq.

Sir John Bowring has also sent us a copy of the same circular, addressed to him by Professor Stenhouse, together with his reply, declining to subscribe it. The second document runs as follows:—

Claremont, Exeter, Aug. 27, 1864.

Dear Sir,—In the general spirit of the document to which my adhesion is asked I cordially concur. That all truths must ultimately harmonize—that one truth cannot be inconsistent with another truth, are propositions—axioms, rather—which cannot be contested; to pro-

claim an approval of them is as much a work of supererogation as it would be to publish an avowal of agreement with the demonstration of a mathematical problem. But it appears to me the period has arrived when we should endeavor to emancipate ourselves from the tyranny of all dogmatizing creeds, all enforced confessions, all foregone conclusions, all compromising declarations; perseveringly carrying out to their necessary consequences our own investigations and convictions, and encouraging others to exercise the same right, and dis-charge the same duty. I do not know how the cause of truth and the interests of religion can be better served than by allowing the utmost latitude to inquiry. It is not possible-nor, if possible, desirable-to prevent comparisons between the historical revelations of the past and the scientific discoveries of the present time. The Bible must be brought into the broad daylight-out of the darkness to which ancient authority condemned it; it must be tested by inquiring knowledge, and taken from the custody of contented ignorance; it must be cleared of its cobwebs, and purged from its corruptions. Nothing less ought reasonably to satisfy those who believe; nothing more can fairly be demanded by those who doubt; but thus much may be asked in the interest of all. There is no "presumption" in giving to the world conclusions soberly, seriously, and reverently formed, be those conclusions what they may. The best resting-place for "faith," or hope, or comfort, will, after all, be found in allowing to the intellectual faculties with which God has blessed us, their widest influence and action over the whole field of thought. By "proving all things" we shall best be able to "hold fast that which is good, and we may be fully assured that the Great Verities which have stood the storms and shocks of agitated centuries, will remain unshaken through coming ages.—I am, dear Sir, your obedient, humble servant, Prof. Stenhouse, F.R.S., &c., London. JOHN BOWRING.

BOSTON DISPENSARY—STATISTICS FO	R THE YEAR ENDING OCT. 1st, 1864.
NEW PA	TIENTS.
Central Office.	Districts.
Medical—Men, 1,092	Men, 1,630
Women, 4,095	Women, 3,743
Children, 3,821	Children, 4,328
Total, 9,008	Total, 9,701
Surgical-Men, 875	Central Office and Districts.
Women, 1,125	Men, 3,597
Children, 1,461	Women, 8,963
	Children, 9,611
Total, 3,461	
Medical and Surgical-Total, 12,469	Total, 22,171
OLD AND NE	W PATIENTS.
Central Office-Medical,	18,064
" Surgical,	5,114
Total,	23,178
Average daily attendance, -	The state of the s
Districts—Births,	126

District.	Physician.		Distr	ict.	Ph	ysicia	m.	
1. C. C	. Street, E. W. Aiken,	1,868	6.	John !				790
2. John	W. Hinckley,	241	7.	Thoma				1,063
3. D. K	. Warren, A. J. Fenn,	1,673	8.	Willia	m E.	Rice,		1,181
	. Shaw, W. B. Mackie,	1,376	-					
	les K. Wheeler,	1,509		Total,				9,701
Total	number of prescription	18, -					40,183	

	g rhysicians and Surgeons.					
Physicians. J. B. Upham.	Surgeons.					
A. D. Sinclair.	C. D. Homans.					
S. L. Sprague.	D. W. Cheever-					
H. K. Oliver, Jr.	Algernon Coolidge.					
S. W. Bowles.	John Green.					
J. C. White.	Apothecary-A. K. Carruthers.					
S. H. Carney.	Assistant-Horace S. Bartlett.					
Hall Curtis.						

Consulting Physicians-Jacob Bigelow, P. M. Crane. Surgeons-S. D. Townsend, J. Mason Warren.

HOWARD F. DAMON, M.D., Superintendent.

LECTURES AT MASS. MEDICAL COLLEGE.—The annual course of winter lectures in the Medical Department of Harvard University will be opened on Wednesday, Nov. 2d, by an introductory lecture by Prof. Clarke, at the Medical College.

VITAL STATISTICS OF BOSTON. FOR THE WEEK ENDING SATURDAY, OCTOBER 22d, 1864. DEATHS.

Deaths during the week						Males.	Females.	74
Ave. mortality of correspondence of the correspondence of the corrected to increase of the correspondence of t		ten y	rears,	1853-	-1863,	35.4	34.9	70.3 76.98

Books and Pamphlets Recrived—Therapeutics and Materia Medica. A Systematic Treatise on the Action and Uses of Medicinal Agents, including their Description and History. By Alfred Stillé, M.D., Professor of the Theory and Practice of Medicine in the University of Pennsylvania, &c. Philadelphia: Blanchard & Lea.—Outlines of Surgical Diagnosis. By George H. B. Macleod, M.D., F.R.C.S.E., &c. New York: Bailliers Brothers—Gun-shot Wounds and other Injuries of Nerves. By S. Weir Mitchell, M.D., George E. Morehouse, M.D., and William W. Keen, M.D., Acting Assistant Surgeons U.S.A., in charge of U.S.A. Wards for Diseases of the Nervous System, Turner's Lane Hospital, Philadelphia. Philadelphia: J. B. Lippincottà Co.—A new Method for treating Fractures of the Femur in Children. By G. D. Beebe, M.D., late Surgeon-in-Chief of the 14th Army Corps, U.S.A.—Transactions of the Medical Institution of Yale College, Session of 1864—65.—Sixteenth Annual Catalogue and Report of the New England Female Medical College. lege, Session of 1864-t male Medical College.

MARRIED,-In Haverhill, Oct. 20th, Dr. C. S. Kittredge, of New York, to Miss A. M. Chase, of Haverhill.

Deaths in Boston for the week ending Saturday noon, Oct. 22d, 74. Males, 35—Females, 39.—Inflammation of the bowels, 1—disease of the brain, 1—inflammation of the brain, 1—bronchitis, 2—burns, 1—cancer, 2—cholera infantum, 1—consumption, 17—consumption, 17—consumption, 1—disease of the large, 1—dropsy of the brain, 2—drowned, 1—dysentery, 1—cpliepsy, 1—typhus fever, 1—disease of the heart, 2—homicide, 1—infantle disease, 1—intlammation of the lungs, 5—marasmus, 4—old age, 2—paralysis, 4—pleurisy, 1—puerperal disease, 1—disease of the skin, 1—smallpox, 2—suicide, 1—tumor, 1—unknown, 3—whooping cough, 1. Under 5 years of age, 27—between 5 and 20 years, 5—between 40 and 60 years, 8—above 60 years, 10. Born in the United States, 47—Ircland, 19—other places, 8.

other places, 8.